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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,569	12/12/2005	Hiroki Ito	81880.0134	6663

26021 7590 01/23/2007
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EXAMINER

LAM, HUNG Q

ART UNIT	PAPER NUMBER
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2809

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/560,569

Applicant(s)

ITO ET AL.

Examiner

Hung Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/12/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Status of the Application

Claims 1- 13 are pending in this application.

If applicant is aware of any prior art or any other co-pending application not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on December 12, 2005 was filed in compliance with the provisions of 37 CFR 1.97. The examiner is considering the information disclosure statement.

Applicant cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/560,569, filed on December 12, 2005.

Drawings

The drawings submitted on the 12 of December 2005 are accepted as part of the formal application.

Specification

The specification is accepted as part of the formal application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

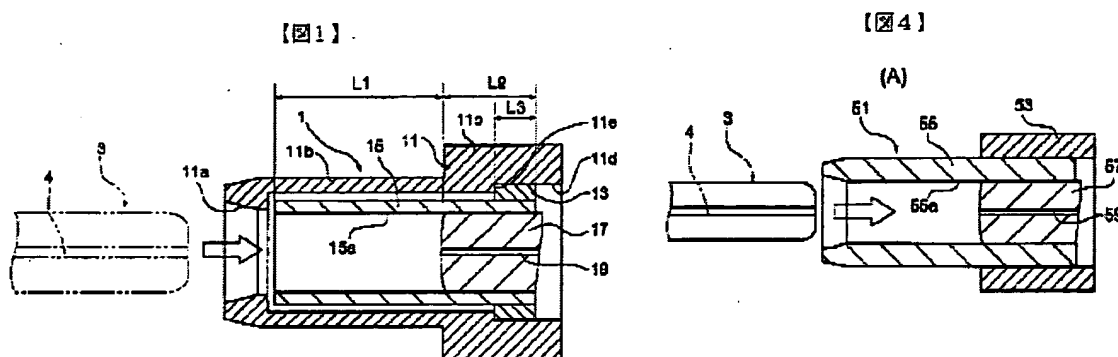
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by **Ishida Chisako** (JP. Pub. 10-332988).

Regarding claims 1-3, Ishida Chisako anticipates an optical receptacle device comprising the following:

- a fiber stub having ferrule 57 and optical fiber 59 inserted in the ferrule through-hole 57 ([0002], Fig. 4).
- a holder 53 holds to fix the rear end of the fiber stub ([0002], Fig. 4).
- an elastic sleeve 15 having 15a inner hole for ferrule 17 inserted in the end face side of the sleeve and the front face side is for holding a plug ferrule 3 ([0008], Fig. 1).
- a gripping/grasping ring or hold ring 13 is inserted/covered the outer periphery of the base end part of the fiber stub or the elastic sleeve 15 (abstract, Fig. 1, [0007]).
- the hold ring 13 or grip ring is fixed to the holes 11d ([0010]).
- the hold ring 13 or grip ring is made of plastic ([0009]), which “controls the elastic elongation/contraction of the base end part of the elastic sleeve 15, which

anticipate the claimed of the grip ring is an elastic body” of the present invention (abstract, [0009]).



Reproduced from JP. Pub. 10-332988.

Regarding claims 4-5, Ishida Chisako anticipates an optical receptacle device comprising the following:

- a fiber stub having ferrule 57 and optical fiber 59 inserted in the ferrule through-hole 57 ([0002], Fig. 4).
- a holder 53 holds to fix the rear end of the fiber stub ([0002], Fig. 4).
- an elastic sleeve 15 having 15a inner hole for ferrule 17 inserted in the end face side of the sleeve and the front face side is for holding a plug ferrule 3 ([0008], Fig. 1).
- a gripping/grasping ring or hold ring 13 in this case is a thick component ([0015]) or thicker portion (same as it stated in the specification of the present invention in paragraph [0089] and figure 4C), which is pressed fit by the end section periphery of the elastic sleeve 15 that inserted the built-in ferrule of the fiber stub ([0007], [0009], Fig. 1).

- The length L3 of the grasping ring 13 or thicker portion of the sleeve is shorter than an insertion length L2 of fiber stub build-in sleeve 15 (claim 3, Fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishida Chisako** (JP. Pub. 10-332988).

Regarding claims 6-7, **Ishida Chisako** discloses the claimed invention, except for the thicker portion being 1.5 to 2.5 times as thick as the other portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the thicker portion be 1.5 to 2.5 times as thick as the other portion. The motivation for doing so is in order to protect elastic sleeve 15 from free of deformation [0007] and regulating elastic telescopic motion [0009], since it helps to reduce a transmission loss in an optical signal and to miniaturize it. Further more, it has been held that were the general conditions of a claims are disclose in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233), and since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishida Chisako** in the view of **Kato et al.** (US. Pub. 2004/0076384).

Regarding claim 8, **Ishida Chisako** discloses all claimed invention, except for the chamfer of a corner around a front end of the fiber stub is 0.1mm or below.

Kato et al. teach that the corner around the ferrule 32 front end of the fiber stub is chamfered ([0047]) in ease to external connector, but the width of the chamfer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of **Kato et al.** in **Ishida Chisako**, by having the width

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of the chamfer corner around the front end of the fiber stub is to be 0.1 mm or below, since the ceramic is suitable for processing and has an excellent dimensional as mentioned at paragraph [0009] of Kato et al. Further more, the motivation for doing so is “in order to connect the optical module in ease to an external connector...” ([0047]), since it has been held that were the general conditions of a claims are disclose in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233), and since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)).

Claims 9, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kato et al.** (US. Pub. 2004/0076384).

Regarding claims 9, 11, Kato et al. disclose the claimed invention such as:

- a ceramic precision sleeve 107 is made of ceramic material, for holding a plug ferrule ([0094], [0095], Fig. 11A, and Fig. 13). As known in the art, the ceramic is an electrical insulation material.
- a metal holder 34 is provided at a rear end of the precision sleeve 107 (“Abstract”, Fig. 11A, and Fig. 13).
- a flange/protruding portion 107f is formed by integrating with the ceramic precision sleeve 107 (Fig. 13) or the flange/protruding portion 99d “...provided on the outer surface of the side wall 99a” of the precision sleeve 99 ([0086], Fig. 11A). With integrating designed as mentioned above, the flange/protruding portion is electrically insulated from the metal holder 34.

Regarding claim 13, Kato et al. disclose claimed invention such as a ceramic ferrule 32 of the same material as the precision sleeve 107, and an optical fiber 37 is inserted in the hole 36 of the ferrule 32 ([Fig. 13, [0047]]). In additional, the ceramic ferrule 32 is inserted into the ceramic precision sleeve 107 ([0089]).

Fig. 11A

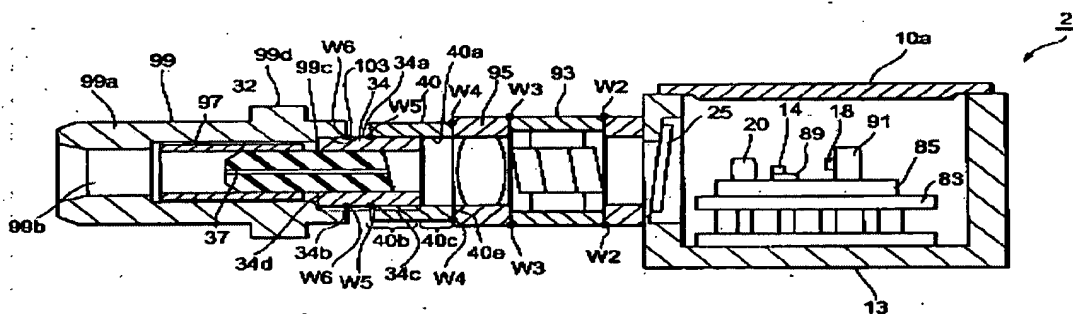
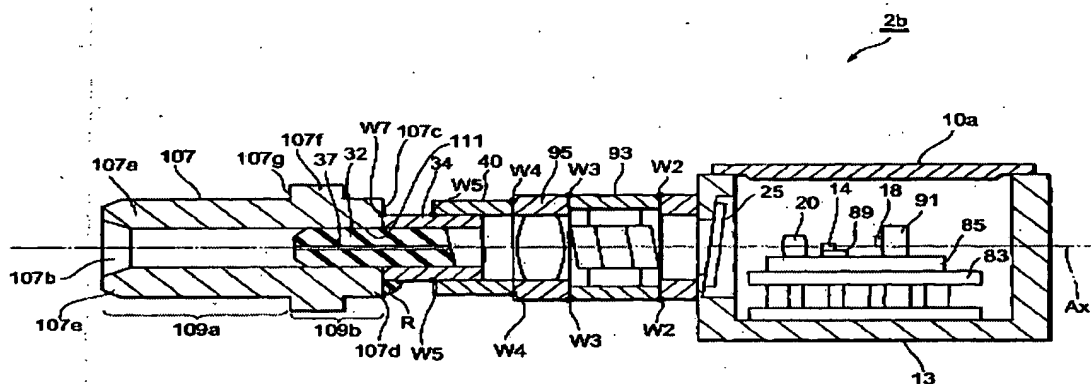


Fig. 13



Reproduce from US. Pub. 2004/0076384.

Kato et al. fail to teach that the flange is a separate or moveable from the precision sleeve.

It would have obvious to one having ordinary skill in the art at the time the invention was made to form the precision sleeve and the flange/protruding portion together integrally in one piece with same material of ceramic, since the optical module can facilitate the optical alignment and the sleeve secures a part of the holder to position the holder relative to the body as

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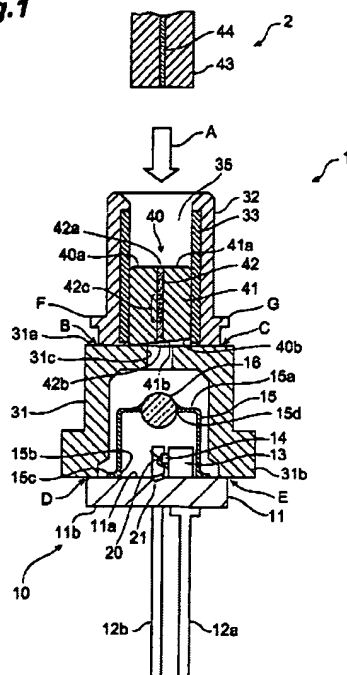
mentioned at paragraph [0007-0008] of Kato et al. Further more, the motivation to doing so in order to reduce the cost and labor and also optimized the electrical insulation function, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

Claims 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kato et al.** in the view of **Yamabayashi et al.** (US. Pat. 7,059,780).

Regarding claims 10, 12, Kato et al. disclose claimed invention except the tier portion where the flange fixed to the precision sleeve in contact with the tier portion, and a spacer in contact between the flange and the metal holder.

Yamabayashi et al. disclose flange/protruding F, and G are provided on the outside face of the precision/outer sleeve 32 (Fig 1, col. 7, 46-47), wherein the tier portion and the spacer are formed integrally with the flange/protruding in one piece (Fig. 1).

Fig.1



Reproduced from US. Pat. 7,059,780.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify **Kato et al.** by using the teachings of **Yamabayashi et al.** to provide the electrical insulated ceramic precision sleeve formed integrally with flange/protruding, tier portion, and spacer, and also in order to help the optical plug 2 connected to the plug ferrule easily (Fig. 1, col. 7, 45-49).

Cited Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yoshikawa (US. Pub. 2005/0286839) discloses an optical subassembly/receptacle comprising a ceramic stub/ferrule 34 with an optical fiber 35 is inserted in it, wherein the stub 34 fixed in a ceramic split sleeve 32, and the sleeve cover/case 31; a metal bush/holder 33 binds the

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sleeve 32 with the stub 34 at the side to the alignment member 21c, and the bush/holder 33 also provides flanges 33b, 33c which are formed integrally.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Lam whose telephone number is 571-272-9790. The examiner can normally be reached on Mon-Thurs from 7:30 AM to 5:00 PM. The examiner can also be reached on alternate Fridays from 7:30 AM to 4:00 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah, can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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AKM ULLAH

SUPERVISORY PATENT EXAMINER